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(FILE 'HOME' ENTERED AT 20:01:04 ON 19 NOV 2009)

FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH, LIFESCI' ENTERED AT 20:01:46 ON 19 NOV 2009

L1 2690 S HUMAN(3A)METAPNEUMOVIRUS OR HMPV  
L2 74 S (MUTATED OR MUTANT OR ATTENUAT? OR DISRUPT? OR KNOCKOUT?)(8A)  
L3 11 S L1 AND L2  
L4 10 S L1(P)L2  
L5 7 DUP REM L3 (4 DUPLICATES REMOVED)  
L6 6 DUP REM L4 (4 DUPLICATES REMOVED)

=> d au ti so pi 1-7 15

L5 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN  
IN Fouchier, Ron A. M.; Herfst, Sander; De Graaf, Miranda  
TI Live attenuated human metapneumovirus variants A1, A2,  
B1 or B2 strains NL/1/99, NL/17/00, NL/1/00 or NL/1/94 as vaccines against  
HMPV respiratory tract infection  
SO U.S. Pat. Appl. Publ., 192pp.

CODEN: USXXCO

| PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE     |
|----------------|------|----------|-----------------|----------|
| US 20090186050 | A1   | 20090723 | US 2008-292000  | 20081114 |

L5 ANSWER 2 OF 7 MEDLINE on STN DUPLICATE 1  
AU Schickli Jeanne H; Kaur Jasmine; Macphail Mia; Guzzetta Jeanne M; Spaete  
Richard R; Tang Roderick S  
TI Deletion of human metapneumovirus M2-  
2 increases mutation frequency and attenuates growth in  
hamsters.  
SO Virology journal, (2008) Vol. 5, pp. 69. Electronic Publication:  
2008-06-03.  
Journal code: 101231645. E-ISSN: 1743-422X.  
Report No.: NLM-PMC2426676.

L5 ANSWER 3 OF 7 LIFESCI COPYRIGHT 2009 CSA on STN  
AU Schickli, Jeanne H.; Kaur, Jasmine; MacPhail, Mia; Guzzetta, Jeanne M;  
Spaete, Richard R.; Tang, Roderick S  
TI Deletion of human metapneumovirus M2-  
2 increases mutation frequency and attenuates growth in  
hamsters  
SO Virology Journal [Virol. J.], (20080000) vol. 5, pp. 69-69.  
ISSN: 1743-422X.

L5 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN  
AU Schickli, Jeanne H.; Kaur, Jasmine; MacPhail, Mia; Guzzetta, Jeanne M.;  
Spaete, Richard R.; Tang, Roderick S.  
TI Deletion of human metapneumovirus M2-  
2 increases mutation frequency and attenuates growth in  
hamsters  
SO Virology Journal (2008), 5, No pp. given  
CODEN: VJIOA4; ISSN: 1743-422X  
URL: <http://www.virologyj.com/content/pdf/1743-422X-5-69.pdf>

L5 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 2  
AU Buchholz, Ursula J.; Blacchesi, Stephane; Pham, Quynh N.; Tran, Kim C.;  
Yang, Lijuan; Luongo, Cindy L.; Skiadopoulos, Mario H.; Murphy, Brian R.;  
Collins, Peter L.  
TI Deletion of M2 gene open reading frames 1 and 2 of human

metapneumovirus: Effects on RNA synthesis, attenuation, and immunogenicity

SO Journal of Virology (2005), 79(11), 6588-6597  
CODEN: JOVIAM; ISSN: 0022-538X

L5 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

IN Parks, Christopher L.; Udem, Stephen A.; Sidhu, Modinderjit S.  
TI Expression systems for the propagation of Mononegavirales with improved  
yields of attenuated virus for vaccine use from cDNA

SO PCT Int. Appl., 139 pp.

CODEN: PIXXD2

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

| PI | WO 2004113517  | A2   | 20041229 | WO 2004-US18305  |
|----|----------------|--|----------|------------------|
|    | WO 2004113517  | A3   | 20060209 |                  |
|    | W:             | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, US |          |                  |
|    | RW:            | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                  |
|    | AU 2004250129  | A1   | 20041229 | AU 2004-250129   |
|    | CA 2528002     | A1   | 20041229 | CA 2004-2528002  |
|    | EP 1633860     | A2   | 20060315 | EP 2004-754803   |
|    | R:             | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR   |          |                  |
|    | BR 2004011247  | A  | 20060725 | BR 2004-11247    |
|    | CN 1871355     | A  | 20061129 | CN 2004-80020973 |
|    | JP 2007500017  | T  | 20070111 | JP 2006-533645   |
|    | US 20060153870 | A1   | 20060713 | US 2005-290639   |
|    | MX 2005013141  | A  | 20060317 | MX 2005-13141    |
|    | IN 2005KN02749 | A  | 20061027 | IN 2005-KN2749   |

L5 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

IN Collins, Peter L.; Biacchesi, Stephane; Buchholz, Ursula; Skiadopoulos, Mario H.; Murphy, Brian R.

TI Recombinant human metapneumovirus comprising  
attenuating nucleotide modifications and its use for eliciting an immune  
response

SO U.S. Pat. Appl. Publ., 190 pp.

CODEN: USXXCO

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

| PI | US 20040241188 | A1   | 20041202 | US 2004-789400  |
|----|----------------|--|----------|-----------------|
|    | AU 2004262624  | A1   | 20050217 | AU 2004-262624  |
|    | CA 2517394     | A1   | 20050217 | CA 2004-2517394 |
|    | WO 2005014626  | A2   | 20050217 | WO 2004-US5881  |
|    | WO 2005014626  | A3   | 20050428 |                 |
|    | W:             | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                 |
|    | RW:            | BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,  |          |                 |

|  |  |                         |
|--|--|-------------------------|
|  | ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,    |                         |
|  | TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG |                         |
| EP 1603939   | A2 20051214  | EP 2004-775808 20040227 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, |  |                         |
| IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK         |  |                         |
| JP 2007524372  | T 20070830   | JP 2006-508872 20040227 |
| IN 2005DN04169   | A 20070831   | IN 2005-DN4169 20050915 |

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